2.23 ICPP-MON-P-020 (MW-20-1)

WELL ID: 1074

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/7/03 Completed: 5/7/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at MW-20-1 consisted of removing a stainless-steel sampling bailer that had become lodged in the well. A boom truck was used to lower a long probe into the well. The bailer was dislodged and pulled from the hole.

6. Observations Recorded: The condition of the surface pad and impingement posts is good. No further problems were noted.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID 1074

Well Modification Log

WELL NAME ICPP-MON-P-020 (MW-20-1) START DATE 5/7/03 END DATE 5/7/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

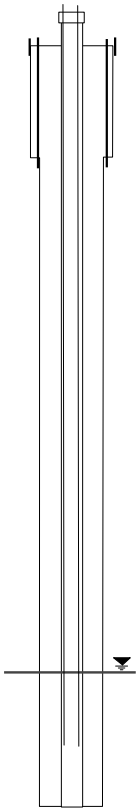
Reason for modification: Removed a down-hole obstruction

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Removed a stuck bailer from the well.

Video Logs: yes _____ *no* X *date* _____

Signature and date: Boe Reynolds 9/5/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-23. Well modification log for ICPP-MON-P-020.

2.24 TRA-06A

WELL ID: 763

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: Test Reactor Area (TRA)

3. Date Maintenance Performed: Started: 6/24/03 Completed: 7/22/03

4. Video Log Information: Video logging was not performed.

5. Maintenance Performed: Dynatec installed three sections of 21-ft, stainless-steel, 1.25-in., discharge pipe. The new pump is located at 549.6 ft bls. Seventy-three feet of electrical cable was added along with a 3-phase, 30A/600V (NEMA #17-L30) electrical plug. To install the lockable well cap, the landing plate had to be modified to a standard landing plate that holds the 1.25-in. discharge pipe, holds the 1-in. access line, and lands on the 6-in. well casing within the 8-in. surface casing. The surface casing was extended to a 16-in. stick-up, and a new well cap was installed.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 763

Well Modification Log

WELL NAME TRA-06A START DATE 6/24/03 END DATE 7/22/03

PROJECT NAME Sitewide Well Maintenance FY 03 INSTALLATION TEAM Dynatec

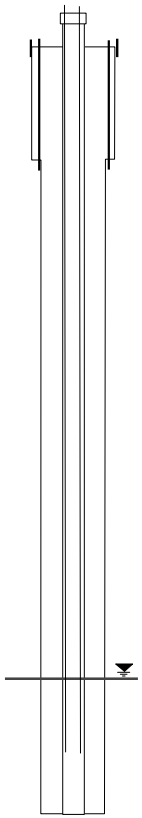
Reason for modification: Extended surface casing and lowered pump.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	549.6 ft
Bottom of pump	553.1 ft
Inlet depth	552.1 ft
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	30A/600V

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	16 inches

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	549.6 ft

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Added three 21 ft sections of 1.25 inch stainless steel discharge line and installed a new landing plate.

Video Logs: yes _____ no X date _____

Signature and date: Boe Reynolds 8/5/03

Well jetted /cleaned: yes _____ no X date _____

Performed by: Dynatec

Figure 2-24. Well modification log for TRA-06A.

2.25 LF2-08

WELL ID: 196

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 5/5/03 Completed: 5/27/03

4. Video Log Information: Video logging was performed on 5/27/03.

5. Maintenance Performed: Maintenance at LF2-08 included removing the 2-hp pump, discharge/access pipe, and electrical assembly; installing a new pump; and replacing the electrical wire with new 8-gauge wire equipped with a 30A/600V (NEMA #17-L30) electrical plug. The well was jetted and cleaned on 5/14/03. Approximately 100 gal of water was generated and disposed of by WGS.

   The first pump, installed on 5/14/03, was damaged by sand during pumping, and a second pump was installed on 5/27/03. The well modification log shows the specifications for the second pump.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 196

Well Modification Log

WELL NAME LF2-08 START DATE 5/5/03 END DATE 5/27/03

PROJECT NAME Borehole Deviation Logging INSTALLATION TEAM Dynatec

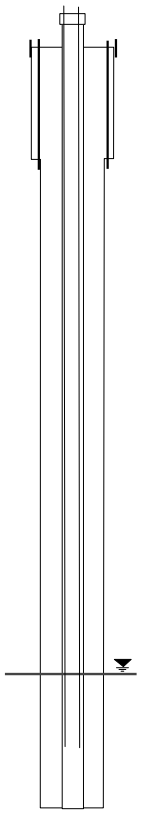
Reason for modification: Pump wasn't working. Sediment is getting into the pump.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grundfos/Franklin Electric
Model #	10S20-27
Pump length	41 inches
Top of pump	483 ft
Bottom of pump	485.4 ft
Inlet depth	484.4 ft
Horse power	2 hp
Flow rate	5 gpm
Head	484 ft
Volts, Amps, Kw	230V/6.7A/1.5KW
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	8 gauge (600V/30A plug)

Protective Casing

Material	Not Applicable
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: A pump was installed on 5/14/03, but was damaged by sand. A second pump was installed on 5/27/03. Specifications listed above are for the second pump.

Video Logs: yes X *no* _____ *date* 5/27/03 *Signature and date:* Boe Reynolds 11/23/03

Well jetted /cleaned: yes X *no* _____ *date* 5/14/03

Performed by: Dynatec

Figure 2-25. Well modification log for LF2-08.

2.26 LF2-09

WELL ID: 197

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/12/02 Completed: 11/21/02

4. Video Log Information: Video logging was not performed on 11/12/02.

5. Deviation Log Information: Gyro-deviation logging was performed on 11/12/02.

6. Maintenance Performed: Maintenance at LF2-09 included removing the pump, discharge/access pipe, and electrical assembly and replacing the old galvanized access line with stainless-steel pipe. Upon completion of well development activities, the original pump was reinstalled to the original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 197

Well Modification Log

WELL NAME LF2-09 START DATE 11/12/02 END DATE 11/21/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

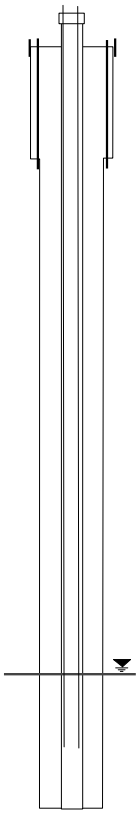
Reason for modification: Pump removed to perform deviation logging.
Galvanized access line replaced with stainless steel.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	Not Modified
Depth BLS	471 ft bls

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: There was significant amounts of sediment found at the bottom of the well. The old galvanized access line was replaced with stainless.

Video Logs: yes X no _____ date 11/12/02

Signature and date: Mike Towler 12/10/03

Well jetted /cleaned: yes _____ no X date _____

Performed by: Dynatec

Figure 2-26. Well modification log for LF2-09.

2.27 LF2-10

WELL ID: 198

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/12/02 Completed: 11/19/02

4. Video Log Information: Video logging was performed on 11/13/02.

5. Deviation Log Information: Deviation logging was performed on 11/13/02.

6. Maintenance Performed: Maintenance at LF2-10 included removing the pump, discharge/access pipe, and electrical assembly to log the well. Upon completion of well maintenance activities, the original pump, pipe, and electrical cable were reinstalled to the original depths.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 198

Well Modification Log

WELL NAME LF2-10 START DATE 11/12/02 END DATE 11/19/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

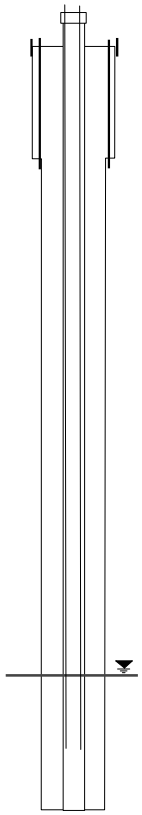
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths.

Video Logs: yes X *no* _____ *date* 11/13/02

Signature and date: Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-27. Well modification log for LF2-10.

2.28 LF2-11

WELL ID: 199

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/12/02 Completed: 11/19/02

4. Video Log Information: Video logging was performed on 11/13/02.

5. Deviation Log Information: Deviation logging was performed on 11/13/02.

6. Maintenance Performed: Maintenance at LF2-11 included removing the pump, discharge/access pipe, and electrical assembly to log the well. After logging, all original materials were returned to their original depths.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 199

Well Modification Log

WELL NAME LF2-11 START DATE 11/12/02 END DATE 11/19/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

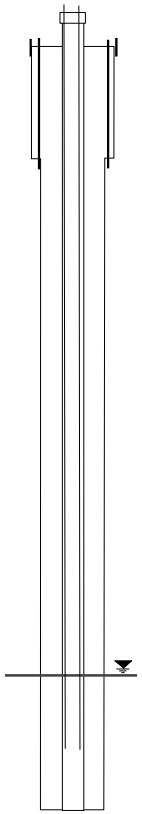
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths.

Video Logs: yes X *no* _____ *date* 11/13/02

Signature and date: Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-28. Well modification log for LF2-11.

2.29 LF2-12

WELL ID: 724

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 6/4/03 Completed: 6/4/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Well maintenance on well LF2-12 consisted of reducing the stick-up of a 1/4-in. vapor-port tube and a 1-in. water-access line that extended 4 ft above the 4.5-in. protective casing. Both were cut off below the elevation of the casing so that a lockable well cap could be installed.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: J. Lambert and D. Waddoups

WELL ID 724

Well Modification Log

WELL NAME LF2-12 START DATE 6/4/03 END DATE 6/4/03

PROJECT NAME FY 03 sitewide well maintenance INSTALLATION TEAM Dynatec

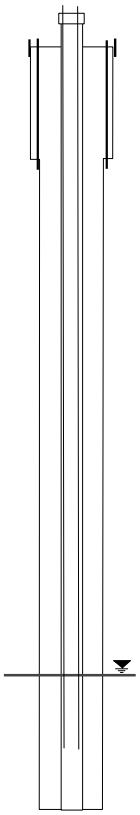
Reason for modification: Cut riser, install a well cap, reduce well casing stick-p

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	13 inches
Depth BLS	Not Modified

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Trimmed excess vapor port and access line to 13 inches stick-up to allow the well cap to close.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* Boe Reynolds 8/5/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-29. Well modification log for LF2-12.

2.30 LF3-08

WELL ID: 207

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/12/02 Completed: 5/27/03

4. Video Log Information: Video logging was performed on 11/13/02 and 5/22/03.

5. Deviation Log Information: Deviation logging was performed on 11/13/02.

6. Maintenance Performed: Maintenance at LF3-08 included removing the pump, discharge/access pipe, and electrical assembly for logging. The video indicated a blockage at 507 ft bls; however, the blockage is well below the pump depth and does not interfere with sampling. After maintenance, sediment was noted during pumping. Video logs were again collected on 5/22/03, revealing sediment and debris. As a result, the borehole was jetted and cleaned on 5/27/03. The pump was reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 207

Well Modification Log

WELL NAME LF3-08 START DATE 11/12/02 END DATE 11/20/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

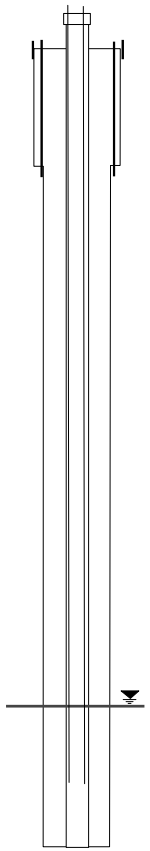
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to there original locations. There was a blockage at 507 ft that appeared to be a pipe. Deviations were completed on 11/13/02.

Video Logs: yes X *no* _____ *date* 11/13/02

Signature and date: M. Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-30. Well modification log for LF3-08 (first maintenance).

WELL ID 207

Well Modification Log

WELL NAME LF3-08 START DATE 5/19/03 END DATE 5/27/03

PROJECT NAME Borhole Deviation Logging INSTALLATION TEAM Dynatec

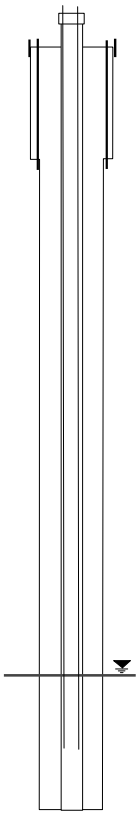
Reason for modification: Pump removed for jetting and cleaning.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Cleaned significant amounts of sand from the borehole through jetting and cleaning.

Video Logs: yes X *no* _____ *date* 5/22/03 *Signature and date:* Boe Reynolds 11/24/03

Well jetted /cleaned: yes X *no* _____ *date* 5/27/03

Performed by: Dynatec

Figure 2-31. Well modification log for LF3-08 (second maintenance).

2.31 LF3-10

WELL ID: 727

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/12/02 Completed: 11/20/02

4. Video Log Information: Video logging was performed on 11/13/02.

5. Deviation Log Information: Deviation logging was performed on 11/13/02.

6. Maintenance Performed: Maintenance at LF3-10 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

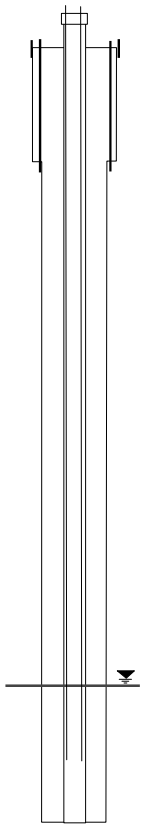
   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

Well Modification Log

WELL ID 727
WELL NAME LF3-10 START DATE 11/12/02 END DATE 11/20/02
PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec
Reason for modification: Pump removed to perform a deviation log on the borehole.
Elevation of brass cap? Not Changed
Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to there original locations. The pump top was set at 580 ft bls. Deviation log was performed on 11/13/02.

Video Logs: yes X no _____ date 11/13/02

Signature and date: Mike Towler 12/10/02

Well jetted /cleaned: yes _____ no X date _____

Performed by: Dynatec

Figure 2-32. Well modification log for LF3-10.

2.32 CFA-MON-A-001

WELL ID: 1077

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/13/02 Completed: 11/25/02

4. Video Log Information: Video logging was performed on 11/20/02.

5. Deviation Log Information: Deviation logging was performed on 11/20/02.

6. Maintenance Performed: Maintenance at this well included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. The pump was damaged as it was being lifted from the well and became lodged in the borehole. As a result, a new pump (refer to the well modification logs) was installed at 514 ft bls, with new 8-gauge wire and a 30A/600V plug (NEMA#17-30).

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1077

Well Modification Log

WELL NAME CFA-MON-A-001 START DATE 11/13/02 END DATE 11/25/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

Reason for modification: Pump removed to perform a deviation log on the borehole.

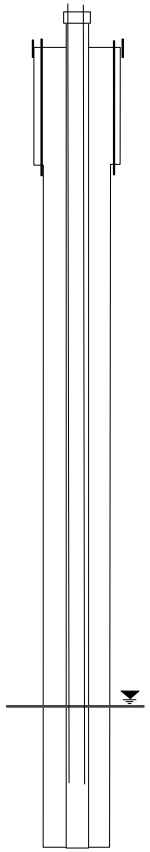
Pump was damaged during removal and was replaced.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? X yes ☐ no If yes was pump returned to original depth? X yes ☐ no

Are measurements from top of casing or land surface? Top of the MP



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grudfos/Franklin Electric
Model #	10S30-34
Pump length	4.58 ft
Top of pump	514 ft bls
Bottom of pump	518.58 ft bls
Inlet depth	517.58
Horse power	3 hp
Flow rate	Not Measured
Head	Not Measured
Volts, Amps, Kw	230V/9.5A/2.2kW
Phase	3 phase
Material	Stainles steel
Motor leads/Plugs	8 gauge/ 30A600V

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Comments: There was a tight spot where the original pump was damaged at 240-280 ft bls. The pump top was set at 514 ft bls. Deviation log was performed on 11/20/02.

Video Logs: yes X *no* _____ *date* 11/20/02

Signature and date: Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-33. Well modification log for CFA-MON-A-001.

2.33 CFA-MON-A-002

WELL ID: 1078

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/14/02 Completed: 11/20/02

4. Video Log Information: Video logging was performed on 11/20/02.

5. Deviation Log Information: Deviation logging was performed on 11/20/02.

6. Maintenance Performed: Maintenance at this well included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1078

Well Modification Log

WELL NAME CFA-M0N-A-002 START DATE 11/14/02 END DATE 11/20/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

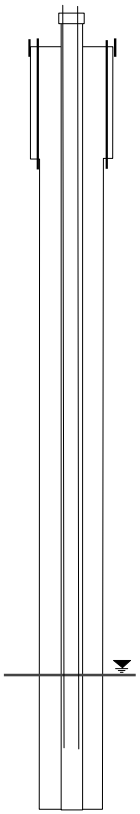
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. Deviation log was performed on 11/20/02.

Video Logs: yes X *no* _____ *date* 11/20/02 *Signature and date:* Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-34. Well modification log for CFA-MON-A-002.

2.34 CFA-MON-A-003

WELL ID: 1089

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: CFA

3. Date Maintenance Performed: Started: 11/14/02 Completed: 11/21/02

4. Video Log Information: Video logging was performed on 11/20/02.

5. Deviation Log Information: Deviation logging was performed on 11/20/02.

6. Maintenance Performed: Maintenance at this well included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1089

Well Modification Log

WELL NAME CFA-M0N-A-003 START DATE 11/14/02 END DATE 11/21/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

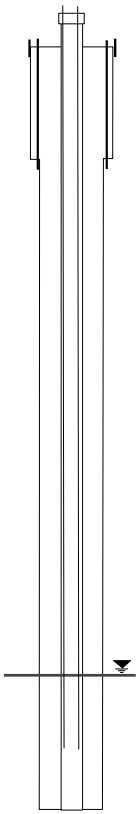
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. Deviation log was performed on 11/20/02.

Video Logs: yes X *no* _____ *date* 11/20/02 *Signature and date:* Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-35. Well modification log for CFA-MON-A-003.

2.35 M1SA

WELL ID: 765

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: Radioactive Waste Management Complex (RWMC)

3. Date Maintenance Performed: Started: 11/14/02 Completed: 11/26/02

4. Video Log Information: Video logging was performed on 11/26/02.

5. Deviation Log Information: Deviation logging was performed on 11/26/02.

6. Maintenance Performed: Maintenance at M1SA included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 765

Well Modification Log

WELL NAME M1SA START DATE 11/14/02 END DATE 11/26/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

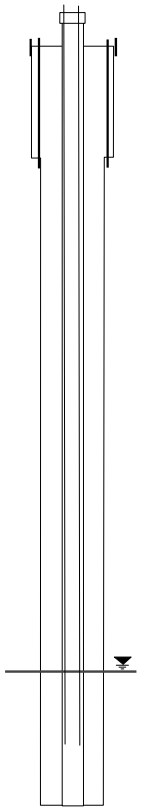
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. Deviation log was performed on 11/26/02.

Video Logs: yes X *no* _____ *date* 11/26/02 *Signature and date:* Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-36. Well modification log for M1SA.

2.36 M10S

WELL ID: 770

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: RWMC

3. Date Maintenance Performed: Started: 10/24/02 Completed: 10/24/02

4. Video Log Information: No video logging was performed during abandonment of this well.

5. Maintenance Performed: Well M10S was abandoned. The borehole and casing were filled with bentonite to seal the well. In order to allow the vapor ports to continue to be used, the well casing was not removed from the borehole. The borehole from the bottom of the well (650 ft bls) to 445 ft bls was filled with coated bentonite pellets. From 445 ft bls to land surface, the well was filled with 3/8-in. bentonite chips. Upon completion of the work, the original wellhead box was replaced and locked. A detailed summary of the abandonment activities is on file with the Hydrologic Data Repository (HDR), for further information contact the HDR.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: INEEL Force Account personnel.

Well Modification Log

WELL ID 770

WELL NAME M10S START DATE 10/24/02 END DATE 10/24/02

PROJECT NAME Abandonment for Well M10S at RWMC. INSTALLATION TEAM Dynatec

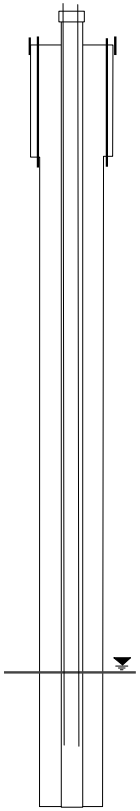
Reason for modification: Well lost its function and needed to be abandoned.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Removed
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Removed
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Removed
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Abandonded in place
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Well casing was not removed from the borehole so vapor ports may still be used.
Abandoned well, filled well screen and casing with bentonite.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* Boe Reynolds 12/12/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-37. Well modification log for M10S.

2.37 SOUTH-MON-A-001 (M11S)

WELL ID: 1212

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: RWMC

3. Date Maintenance Performed: Started: 5/12/03 Completed: 5/19/03

4. Video Log Information: Video logging was performed on 5/13/03

5. Deviation Log Information: Deviation logging was performed on 5/13/03.

6. Maintenance Performed: Maintenance at M11S included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video, deviation, and gyro-deviation logging. The video indicated a buildup of bacteria in the well. Seven and a half gal of Aquaclear was used to jet the borehole. Once the pH levels were neutral, all well equipment (i.e., pump, pipe, and wire) was reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

Well Modification Log

WELL ID 1212

WELL NAME South-MON-A-001 (M11S) START DATE 5/12/03 END DATE 5/19/03

PROJECT NAME ICDF Borehole Deviation Logging INSTALLATION TEAM Dynatec

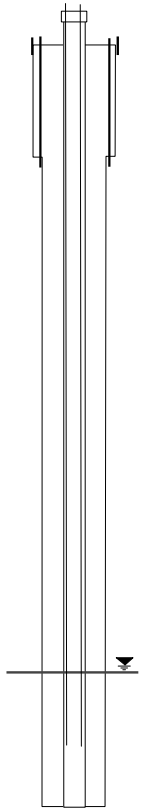
Reason for modification: Perform Deviation and Gyro-Deviation Logs

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Approximately 7.5 gallons of Aquaclear was injected to aid in cleaning the borehole.

Video Logs: yes X *no* _____ *date* 5/13/03

Signature and date: Boe Reynolds 5/19/03

Well jetted /cleaned: yes X *no* _____ *date* 5/13/03

Performed by: Dynatec

Figure 2-38. Well modification log for SOUTH-MON-A-001.

2.38 SOUTH-MON-A-002 (M12S)

WELL ID: 1213

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: RWMC

3. Date Maintenance Performed: Started: 11/14/02 Completed: 11/22/02

4. Video Log Information: Video logging was performed on 11/21/02.

5. Deviation Log Information: Gyro-deviation logging was performed on 11/21/02.

6. Maintenance Performed: Maintenance at M12S included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1213

Well Modification Log

WELL NAME SOUTH-MON-A-002 (M12S) START DATE 11/14/02 END DATE 11/22/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

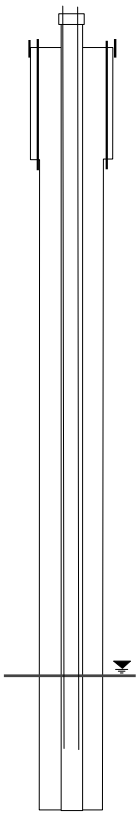
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. Deviation log was performed on 11/21/02.

Video Logs: yes X *no* _____ *date* 11/21/02 *Signature and date:* Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-39. Well modification log for SOUTH-MON-A-002.

2.39 SOUTH-MON-A-004 (M14S)

WELL ID: 1215

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: RWMC

3. Date Maintenance Performed: Started: 11/25/02 Completed: 11/26/02

4. Video Log Information: Video logging was performed on 11/25/02.

5. Deviation Log Information: Deviation logging was performed on 11/25/02.

6. Maintenance Performed: Maintenance at M14S included removing the pump, discharge/access pipe, and electrical assembly for logging. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1215

Well Modification Log

WELL NAME SOUTH-MON-A-004 (M14S) START DATE 11/25/02 END DATE 11/26/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

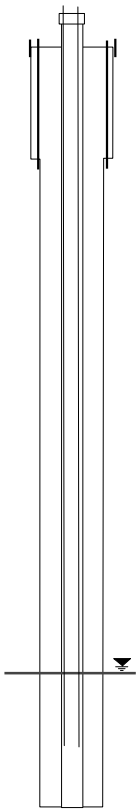
Reason for modification: Pump Removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. Deviation log was performed on 11/25/02.

Video Logs: yes X *no* _____ *date* 11/25/02 *Signature and date:* Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-40. Well modification log for SOUTH-MON-A-004.

2.40 RWMC-MON-A-013 (A11A31)

WELL ID: 906

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: RWMC

3. Date Maintenance Performed: Started: 11/15/02 Completed: 12/03/02

4. Video Log Information: Video logging was performed on 11/25/02.

5. Deviation Log Information: Deviation logging was performed on 11/25/02.

6. Maintenance Performed: Maintenance at A11A31 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. A new 4-in. Grundfos pump was reinstalled to the original depth using the original discharge pipe. The pump was wired with new 8-gauge wire and a 30A/600V plug (NEMA #L17-30).

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 906

Well Modification Log

WELL NAME RWMC-MON-A-013 (A11A31) START DATE 11/15/02 END DATE 12/03/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

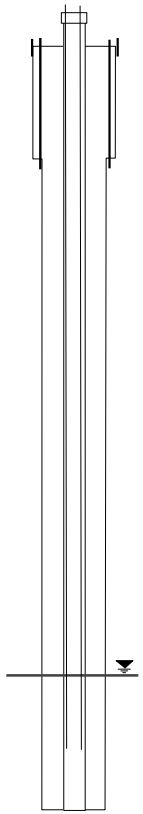
Reason for modification: To perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Top of the MP



Use diagram explain modification

Pump Modification

Type	4 inch Grundfos
Manufacturer	Grundfos
Model #	10S 20-27
Pump length	3.5 ft
Top of pump	657 ft bls
Bottom of pump	660.5 ft bls
Inlet depth	658.5 ft bls
Horse power	2 hp
Flow rate	Not measured
Head	Not measured
Volts, Amps, Kw	230v, 6.7 amp, 1.5 kW
Phase	3 phase
Material	Stainless steel
Motor leads/Plugs	30 amp, 600volt

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. New 8 gauge electrical cable was installed. Deviation log was performed on 11/25/02.

Video Logs: yes X *no* _____ *date* 11/25/02 *Signature and date:* Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-41. Well modification log for RWMC-MON-A-013.

2.41 RWMC-MON-A-066 (OW-2)

WELL ID: 1132

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: RWMC

3. Date Maintenance Performed: Started: 11/15/02 Completed: 11/26/02

4. Video Log Information: Video logging was performed on 11/25/02.

5. Deviation Log Information: Deviation logging was performed on 11/25/02.

6. Maintenance Performed: Maintenance at OW-2 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. A weep hole was installed at 622 ft bls. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: M. Towler/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1132

Well Modification Log

WELL NAME RWMC-MON-A-066 (OW-2) START DATE 11/15/02 END DATE 11/26/02

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec

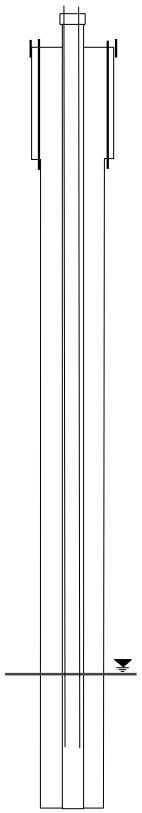
Reason for modification: Pump removed to perform a deviation log on the borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original locations. New 8 gauge electrical cable was installed. Deviation log was performed on 11/25/02. Drilled a weep hole at 622 ft bls.

Video Logs: yes X *no* _____ *date* 11/25/02

Signature and date: Mike Towler 12/10/02

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-42. Well modification log for RWMC-MON-A-066.

2.42 USGS-009

WELL ID: 458

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: South of RWMC on the T-1 road

3. Date Maintenance Performed: Started: 6/30/03 Completed: 9/11/03

4. Video Log Information: Dynatec personnel and the field crew collected a video log on 7/8/03. Due to a significant amount of debris in the borehole, visibility was limited. The need to jet and clean the borehole was noted. A well brush was also noted in the well.

5. Maintenance Performed: Maintenance at USGS-009 included removing the 5-hp pump, discharge/access pipe, and electrical assembly; jetting and cleaning the borehole; installing a new pump (refer to well modification logs); replacing old galvanized pipe with stainless-steel pipe (refer to well modification logs); and replacing the electrical wire with new 8-gauge wire equipped with a 30A/600V plug (NEMA #17-L30). The well brush was removed from the well on 7/14/03 before cleaning and reinstalling the pump.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 458

Well Modification Log

WELL NAME USGS-009 START DATE 6/30/03 END DATE 9/11/03

PROJECT NAME FY 03 Sitewide Wide Well Maintenance INSTALLATION TEAM Dynatec

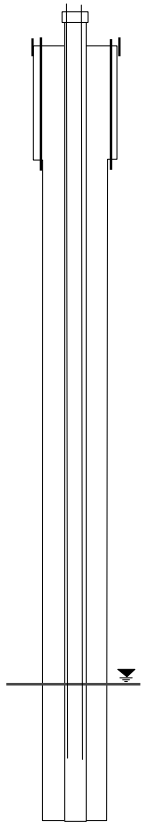
Reason for modification: Replace the pump, pipe, wire; jet and clean the borehole; video and log.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Casing



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grundfos
Model #	16S50-38
Pump length	5.1 ft
Top of pump	655 ft bls
Bottom of pump	660.1 ft bls
Inlet depth	659.1 ft bls
Horse power	5 hp
Flow rate	Not Measured
Head	613 ft
Volts, Amps, Kw	460V/9.9A/5kW
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	8 gauge, 600V/30A plug

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steal
Diameter	1.5 in.
Height above ground (stick-up)	3 ft
Depth BLS	655 ft bls

Water Level Access Line Modification

Material	Stainless Steal
Diameter	1 in.
Height above ground (stick-up)	3 ft.
Depth BLS	625 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Comments: The video of this well showed excessive amounts of debris so the well was jetted and cleaned. A well brush found during the video log was also removed.

Video Logs: yes X no _____ date 7/8/03 *Signature and date:* Boe Reynolds 8/5/03

Well jetted /cleaned: yes X no _____ date 7/14/03

Performed by: Dynatec

Figure 2-43. Well modification log for USGS-009.

2.43 USGS-019

WELL ID: 468

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: Northwest of the Naval Reactors Facility (NRF)

3. Date Maintenance Performed: Started: 6/11/03 Completed: 7/20/03

4. Video Log Information: The USGS video logged well USGS-019 on 6/17/03. The video showed a slotted carbon-steel screen with rust composite caked on the inside of the screen. The top of a 3/4-in. poly vinyl chloride pipe was visible at 327 ft bls; several pieces of pump tape were also noted.

5. Maintenance Performed: Maintenance at USGS-019 included removing the pump, pipe, and electrical assembly; jetting and cleaning the borehole; removing sediment in the well with a sand pump, installing a new pump (3-hp, 3-phase); replacing old galvanized pipe with stainless-steel pipe (1.25-in. discharge and a 1-in. water access line); and replacing the electrical wire with new 10-gauge wire equipped with a 30A/600V plug (NEMA #17-L30).

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 468

Well Modification Log

WELL NAME USGS-019 START DATE 6/11/03 END DATE 7/20/03

PROJECT NAME FY 03 Sitewide Wide Well Maintenance INSTALLATION TEAM Dynatec

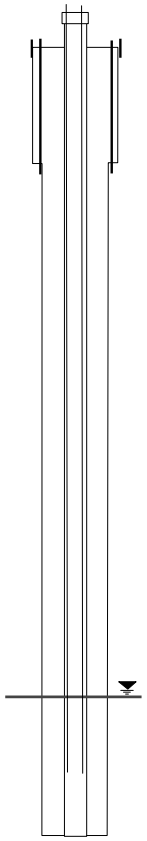
Reason for modification: Clean, jet, and video; replace galvanized pipe with stainless; and install a working pump.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [ ] yes [X] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	4 in. Submersible
Manufacturer	Grundfos/Franklin Electric
Model #	10S30-34
Pump length	4.58 ft
Top of pump	323.7 ft
Bottom of pump	328.28 ft
Inlet depth	327.28 ft.
Horse power	3 horse
Flow rate	Not Measured
Head	279 ft
Volts, Amps, Kw	230V/9.5A/2.2KW
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	10 gauge/ 600V/30A plug

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1.5 in.
Height above ground (stick-up)	2.5 ft
Depth BLS	323.7 ft

Water Level Access Line Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	2.5 ft
Depth BLS	Aproximately 304 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Comments: There is a 3/4 in PVC pipe located in the well at approximately 327 ft bls. It apperared to have been broken off and lost in the well.

Video Logs: yes X *no* _____ *date* 6/17/03

Signature and date: Boe Reynolds 8/5/03

Well jetted /cleaned: yes X *no* _____ *date* 7/20/03

Performed by: Dynatec

Figure 2-44. Well modification log for USGS-019.